

REMARKS

Further to our Amendment filed on December 30, 2003, the Applicant has decided to submit substantive arguments to overcome the 102(b) rejection based on EP 0897161, hence this Supplemental Amendment. In this Supplemental Amendment, everything is identical to the Amendment filed on December 30, 2003, except the responses to the 102(b) rejection based on EP 0897161.

Prior to the filing of this Supplemental Amendment, the Undersigned Attorney has already attempted to contact the Examiner on January 16, 2004 by calling and leaving a message regarding the preparation and filing of this Supplemental Amendment.

Claim Rejections - 35 U.S.C. §102

Claim 6 is rejected under 35 U.S.C. §102(b) as being anticipated by Fujitsu Limited (EP patent 0897161 cited by Applicant).

In rejecting the claimed invention, the outstanding Office action has specifically stated that:

“Fujitsu Limited discloses in figure 1 an optical scanning-type touch panel comprising: an optical scanning unit for angularly scanning light in a plane substantially parallel to a predetermined region (see two lights send/receive unit 1a, 1b); a deflecting unit for deflecting scanning light of said optical scanning unit; and a light receiving unit for receiving the deflected scanning light, for detecting a scanning light cut-off position (see cut-off position by finger), which is produced in said predetermined region by an indicator, based on a light receiving output of said light receiving unit that corresponds to a scanning angle (see abstract), and satisfying a condition:

$d/2 + w < D \tan \theta$, where D is a distance from said optical scanning unit to said deflecting unit, w is a width on said deflecting unit from a path of said scanning light to an end on said predetermined region side, d is a beam width of said scanning light, and θ is a scanning start angle, because Fujitsu Limited discloses in figures 3

and 5 an optical system having an distance (D) from optical scanning unit to the deflecting unit (see mirror 16a), deflecting unit having a width (w), and a beam width of scanning (d), and (teta) or 8 is a scanning start angle (see figure 3).

From the condition above, if we let $w = 3\text{mm}$

$D = 45\text{mm}$

$d = 40\text{mm}$

$\theta = 30 \text{ degrees}$

$40/2 + 3 < 45 \tan 30$

Therefore, $23 < 25.98$, and then $d/2 + w < D \tan \theta$."

While the Office has made clear assertions regarding detail mathematical expressions, the Office fails to indicate where in the asserted prior art reference is there any disclosure or teaching of mathematical expressions positively recited in claim 6 of the present invention. Furthermore, while the Office has used a number of variables and numerical values in the rejection, it is not understood where these values are disclosed or taught in the asserted prior art reference.

It is well settled that:

"A claim is anticipated only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1567, 7 USPQ2d 1057 (Fed. Cir. 1988)."

Should the Office continue to believe that claim 6 is still anticipated by the asserted prior art, a citation of where each and every claimed feature, either as column number and line number, or figure number and reference numeral, or a combination thereof, as disclosed in the asserted prior art is respectfully requested. Should the Office determine that any claimed feature is not disclosed in the asserted prior art, it is respectfully submitted that the claimed invention is not anticipated by the asserted prior art. Allowance of the claimed invention is then respectfully requested.

Claim Rejections - 35 U.S.C. §103

Claims 1-5 and 7 are rejected under 35 USC §103(a) as being unpatentable over Junkins et al. (U.S. Patent No. 5,525,746 cited by Applicant) in view of Brandt (U.S. Patent No. 5,438,446).

Regarding claim 1, the outstanding Office action has specifically recited that “Junkins et al. do not disclose the deflecting unit has an asymmetrical shaped about an optical axis.” The Applicant agrees with this Office assessed shortcoming of Junkins.

To supplement this shortcoming of Junkins, the outstanding Office action asserted that “Brandt discloses in Figure 4 an optical scanner for scanning a light beam onto an image object having an asymmetrical shaped about an optical axis (see mirror N1 asymmetry through vertical axis 00-01, see column 6, lines 20-25).”

Therefore, it is a firm Office position that Figure 4 of Brandt and associated written description discloses an image object having an asymmetrical shaped about an optical axis. Column 6 lines 20-25 only stated that:

“The reflected light beam is made up of three reflectance components 51, 52 and 53 which are reflected from the air-coating interface $N_{\text{sub.0}}$ - $N_{\text{sub.1}}$, the coating-polished mirror surface interface N_1 - N_2 and the reflectance of a portion of beam 52 back at the air-coating interface to the other interface, respectively.”

Junkins (U.S. Patent No. 5,525,746) discloses a “scan mirror”, a “parabolic collector” and a “photo-detector”, respectively corresponding to an “optical scanning unit”, a “deflecting unit” and a “light receiving unit”, which allegedly corresponds to claim 1 of the present invention. However, unlike claim 1 of the present invention, the “parabolic

collector” is symmetrical about an optical axis. In view of the above, the Office cited Brandt as an example disclosing a member corresponding to the “deflecting unit” asymmetrical about an optical axis. In view of the above, the Office cited Brandt as an example disclosing a member corresponding to the “deflecting unit” asymmetrical about an optical axis, asserting that Brandt discloses such an example in column 6, lines 20-25. Brandt does not substantiate the Office assertion. The cited part of Brandt merely describes reflected light beam in the case where a light beam is allowed to enter a component of two types of materials (each having a refraction factor of N_1 and N_2) diagonally through the air (having a refraction factor of N_0) toward a material having a refraction factor of N_1 . It is completely inappropriate to assert that the mirror of Brandt corresponds to the “deflecting unit” of claim 1 of the present invention.

Regarding claim 7, the outstanding Office action has specifically recited that “Junkins et al. do not disclose the optical scanning unit is provided with a protective film having a maximum reflectance at an angle of incidence to a scanning angle at which a quality of the reflected light is minimum.” The Applicant agrees with this Office assessed shortcoming of Junkins.

To supplement this shortcoming of Junkins, the outstanding Office action asserted that “Brandt discloses in Figures 5-6, a reflectance of a aluminum mirror substrate having SiO_2 protective coating (protective film) and having the optimal thickness to be employed to minimize reflectance variations in the range of incident light beam scanning angles (that is the quality of reflected light is minimum), therefore, the protective film having maximum reflectance (see column 6, lines 26-47).

Junkins discloses a “retro-reflector”, a “scan mirror”, and a “photo detector”, respectively corresponding to a “light retro-reflector”, an “optical scanning unit” and a “light receiving unit”, which allegedly corresponds to claim 7 of the present invention. However, Junkins does not disclose a “protective film” of claim 7 of the present invention. The Office asserts that Figs. 5 and 6 of Brandt illustrate an example of it. However, it is impossible. Brandt discloses a SiO₂ film having an optimum thickness to be employed to minimize reflectance variations according to incident angles, whereas claim 7 of the present invention discloses a SiO₂ film having an optimum thickness to be employed to maximize a reflectance at an angle of incidence corresponding to a scanning angle at which a quantity of reflected light is minimum. In this regard, Brandt is completely different from the present invention.

Section 2143 of the MPEP has specifically stated that:

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 466, 20 USPQ2d 1438 (Fed. Cir. 1991).”

Therefore, it is both a court position and a Patent Office position that to establish a *prima facie* case of obviousness, 1) there **must be** some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; 2) there **must be** a reasonable expectation of success;

and 3) the teaching or suggestion to make the claimed combination and the reasonable expectation of success **must both be** found in the prior art, and not based on applicant's disclosure.

Given that the Office cited portion of Brandt does not suggest an image object having an asymmetrical shaped about an optical axis, this rejection has not rise to a level satisfying the standard required to establish a *prima facie* case of obviousness, it is respectfully submitted that the obviousness rejection is defective and allowance of the claimed invention is requested.

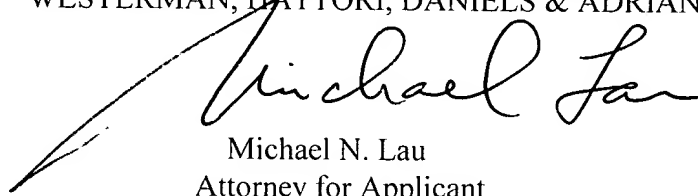
CONCLUSION

In view of the aforementioned amendments and accompanying remarks, all pending claims are believed to be in condition for allowance, which action, at an early date, is requested.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 50-2866.

Respectfully Submitted,

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